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ABSTRACT

In producing and comprehending messages, a communicator relies on a "message design logic" embodying an individual's knowledge about how to relate message forms and functions. According to this model, there are three different message design logics: (1) expressive, in which self-expression is the chief function, and affective and idiosyncratic principles connect messages to the context; (2) conventional, in which the point of messages is to secure specific responses and in which messages are connected to their context by institutionalized appropriateness norms; and (3) rhetorical, in which messages are meant to create consensus between sender and receiver, and in which messages are connected to context by character, motivation, and social coordination models. One of two preliminary studies (207 undergraduate subjects) developed a method for investigating how differences in design logic are manifested in the thoughts a message producer has about the communication situation. A second study (in which 507 undergraduates served as subjects) investigated the role of the design logics employed by both message producer and receiver. Results of both investigations indicated that messages reflecting the operation of different design logics are produced by people who have systematically different thoughts about the communication situation and that these differing communicative intentions are mirrored in the differential attribution of thoughts to message producers by respondents. (SG)

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EFFECTS OF MESSAGE DESIGN LOGIC ON THE COMMUNICATION OF INTENTION

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ABSTRACT

O'Keefe (1988) has argued that in producing and comprehending messages, a communicator relies on an implicit model of communication (a "message design logic") that embodies an individual's knowledge about how to relate message forms and message functions. According to this model, there are three different message design logics: (1) expressive, in which self-expression is the chief message function and the principles connecting messages to the context are affective and idiosyncratic; (2) conventional, in which the point of messages is to secure some specific response and in which messages are connected to their context by institutionalized norms of appropriateness; and (3) rhetorical, in which the point of messages is to create a consensus between message sender and receiver, and in which messages are connected to their context by models of character, motivation, and social coordination.

This paper reports results of two investigations. The first study developed a method for investigating the way differences in design logic are manifested in the thoughts a message producer has about the communication situation. The second study investigated the role of the design logics employed by both message producer and message receiver in communication. Results of these two investigations indicated that messages reflecting the operation of different design logics are produced by people who have systematically different thoughts about the communication situation and that these differences in communicative intentions are mirrored in the differential attribution of thoughts to message producers by message respondents.

Effects of Message Design Logic on the Communication of Intention

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One objective of interpersonal communication theory and research is to describe and explain the fit between messages and the jobs they are meant to do. This is an important objective because with many of the most important communication tasks, different individuals produce widely varying kinds of messages, with different degrees of success (for reviews see Burleson, 1984; O'Keefe & Delia, 1982; Siebold, Cantrill & Meyers, 1985). Understanding how and why such functional variation comes to be would make both a theoretical contribution to our understanding of discourse production and a practical contribution to our ability to advise lay communicators.

The underlying assumption of most work on message design is that communicators are rational agents: that is, a message is designed to do a particular job, and a message represents a person's best effort (under the circumstances) to bring about some desired state of affairs and/or avoid undesirable states of affairs. So, for example, Seibold, Cantrill, and Meyers (1985) have pointed out that most studies of compliance-gaining messages have been grounded in a "strategic choice" model. Similarly, Jacobs (1985) argues that much recent work on discourse coherence and conversational organization embodies a "strategic inference" model that presumes a rational agent.

But as O'Keefe (1988, in press a, in press b) has argues, most rational models presuppose that there is one method of message design that represents the way to fit messages to tasks. For example, Brown and Levinson's (1978) influential analysis of politeness

explicitly adopts a model of the message producer as rational agent. Brown and Levinson implicitly assume that the primary resources available to the message producer in designing messages are indirectness and redressive action. Both indirectness and redress are thought to operate in a particular manner in relation to the communicator's aims. In short, Brown and Levinson's analysis turns on a particular view of message design, and not just the general assumption that message producers are rational agents (for an elaboration of this point, see O'Keefe, in press b).

Virtually every rational model shares this property--namely, of assuming not just rationality but a particular view of what constitutes rationality. It is easy to see why this is true: unless one can specify in detail what constitutes rationality, the idea that people act rationally in designing messages lacks explanatory value. In short, without a theory of rationality, rational really is nothing more than a compliment paid to messages we like.

However, while rational models require some specification of a view of rationality, it is neither necessary nor desirable to assume that there is some one universal sense of rationality in communication. O'Keefe (1988; in press b) has argued that individuals can have distinctively different conceptions of message design, which lead them to view such discourse resources as indirectness and redress in differing ways and even to employ other linguistic devices in preference to indirectness and redress. Specifically, she has argued that individuals can employ any of three different "message design logics," ways of reasoning about the fit between messages and tasks.

An expressive message design logic reflects a view of communication as self-expression. It is employed by individuals whose sense of relevance is unconstrained by social

norms regarding what is relevant or appropriate to situations. Generally, such individuals employing an expressive design logic "dump" whatever they happen to think of regardless of its relevance to the ostensible focus of ongoing interaction or activities. Although such individuals do not suppress or edit message content on the basis of irrelevance, they do edit and suppress content when they anticipate that it might be face-threatening. In fact, editing messages (suppressing expression, distorting information, or lying) is the primary method through which an expressive message design logic addresses the need to preserve face.

A conventional message design logic reflects a view of communication as a kind of game played by socially specified rules--a matter of enacting the appropriate behavior to signal a particular intention, with success being determined by the authority granted to message producer and recipient by the social system. Within a conventional logic, a distinction is drawn between content that is subjectively relevant and content that is objectively relevant, and expression is generally restricted to objectively relevant content. Within this design logic, the need to establish social legitimacy is the primary determinant of the relevance of thoughts to the communicative situation: being "objective," "rational," or "relevant" is equivalent to performing the correct action or defending its correctness in terms of communicative conventions. Conventional communicators employ editing, but primarily in response to their sense of relevance, and not simply to serve interpersonal goals such as face-saving. Conventional communicators generally employ indirectness and redressive forms as means of managing identities and relationships.

A rhetorical message design logic reflects a view of communication as the negotiation of meaning. Like conventional communicators, individuals employing a rhetorical message

design logic distinguish between subjectively and objectively relevant content, and generally only express thoughts that are objectively relevant to a situation. However, the rhetorical sense of rationally and relevance is quite different from that embodied in the conventional design logic. Individuals using rhetorical logic treat social structure and its associated rights and obligations as mutable; rules are not treated as inherent in roles or situations, but rather as the products of processes of communication. And since social arrangements can be altered by the will of those who create them, social structures cannot and do not legitimate systems of communicative action. Instead, the force of a message is taken to derive from rational persuasion, especially persuasion grounded in a vision of the common good. And consequently, consent is taken to be the ultimate foundation for all social action, leading the rhetorical sense of relevance to be organized by models of consensus and consent.

In summary: O'Keefe's view, the operating characteristics of different message design logics are all consequences of the fact that different message design logics embody different conceptions of what is relevant to a communication situation. Differences in their sense of relevance lead individuals to construct the context for communication differently and to make different decisions about what ideas are appropriate for expression.

O'Keefe's analysis of individual differences in the logic of message design was proposed as an explanation for a body of findings regarding individual differences in message production (for reviews, see O'Keefe & Delia, 1982, 1988). However, the message design logic model has not been subjected to detailed scrutiny, largely because there are no standard ways to elicit the situationally-relevant beliefs that comprise the context and motivation for communication.

The purposes of the present investigation were twofold: (1) to develop a method by which differences in the sense of relevance associated with the three different design logics can be operationalized; and (2) to investigate how differences in individuals' message design logics shape the process and effects of message production. In this paper we report preliminary findings from two related investigations. In the first investigation we found that differences in message design logic are systematically related to the thoughts that individuals have about communication situations. In the second investigation we found that hearers attribute different beliefs and intentions to message producers who employ differing design logics.

Study I: Differences in Message Design Logic and Message Production

Translating the abstract concept of a message design logic and its associated "sense of relevance" into concrete measurement procedures is difficult because in O'Keefe's (1988) view, message design logics are not modular structures that exist in isolation from the contents of cognition and behavior, but rather are the product and manifestation of increasing acquisition and integration of specific knowledge about communication. Hence, it is inappropriate to operationalize message design logic by asking people to give their concepts of communication. People may or may not have literally theorized about communication; and in any event such explicit theories represent only an individual's attempt to articulate some subset of his or her beliefs about communication.

A message design logic is the body of working knowledge an individual possesses about a communication process, and not the theory--lay or expert--that might be articulated about it. Hence, a "message design logic" can only be observed in the way in which an

individual operates in specific communication situations. One way to observe message design logic is to see its manifestation in the message an individual produces--as O'Keefe (1988) argued, the use of different logics leads individuals to produce different kinds of messages in complex communication situations. O'Keefe (1988) has also proposed that message design logic is manifest in the kinds of impressions people form in coming to know another person.

To move beyond simply treating the products of communication as symptomatic of a sense of relevance influences message production, a method of eliciting an individual's situationally relevant beliefs about communication is required. According to O'Keefe (1988), different message design logics lead individuals to focus on different features of situations and to assign significance to those features in different ways, with the consequence that they have different substantive beliefs about the situation. Different message design logics also lead individuals to have different beliefs about what they should try to accomplish and how communication can be used to accomplish goals. So differences in message design logic should be reflected in differences in the beliefs individuals recognize as relevant to a communication situation.

In designing a procedure for determining what beliefs formed the basis for an individual's message, we reasoned that to make meaningful tests of many of O'Keefe's hypotheses, the procedure should be non-interpretive. That is, we should employ a procedure that did not involve coding or classifying peoples' beliefs or intentions. In O'Keefe's view, differences in the kinds of messages people produce reflect differences in the kinds of content people have to express. To provide direct evidence for this kind of claim, it is important to

show that differences in message types are associated with differences in the pattern of specific ideas that individuals have about a communication situation.

In Study I we developed a procedure for determining what thoughts individuals had about a communication situation and used to answer the research question: Do individuals who manifest different message design logics report different beliefs about a communication situation?

Methods and Design

Identification of Relevant Thoughts. In a pretest we asked undergraduate students to tell us what kinds of thoughts were evoked by a hypothetical communication scenario. This scenario, referred to as the Broken Date problem, was adapted from a scenario developed by Newell and Stutman (1982). The problem was designed to elicit responses from message producers that would be characteristically expressive, conventional, or rhetorical. The Broken Date Problem is reproduced in Appendix I.

The participants in the pretest were 27 students enrolled in an advanced interpersonal communication class at a large midwestern university.

Participants were asked to read the Broken Date scenario, to write what they would say in response to the situation, and to list what they were thinking about the situation as they wrote their messages. Participants were prompted with a series of open-ended questions and wrote free-response answers to each question. They were asked: (1) to describe the events leading up the their message; (2) to say what their goals were in the situation; (3) to tell what they thought about the person in the scenario; (4) to predict how the person in the scenario

would react to the message they produced; (5) to explain why they anticipated this reaction; and (6) to indicate what reaction they would like to get from the recipient.

Both the messages participants produced and the free-response answers they provided were segmented into discrete thought units. Each independent clause was treated as a separate thought unit. All the thought units produced by the 27 participants were compiled; standard forms of expression were selected for sets of synonymous thoughts. After eliminating redundant thoughts, these procedures generated a list of 121 common thoughts about the Broken Date situation. The 121 common thoughts are listed in Table 1.

Message Elicitation and Report of Thoughts. For the main investigation, we solicited volunteers from undergraduate speech communication classes to serve as participants. A total of 212 students participated, although incomplete data from 5 participants were excluded from the sample, producing an N of 207. These students were asked to complete three tasks: (1) to produce a message for the Group Leader problem; (2) to produce a message for the Broken Date problem; and (3) to complete the Thought Checklist associated with the Broken Date problem.

Participants completed the standard form of the Group Leader problem (see O'Keefe, 1988), in which they are asked what they would say to a group member who failed to complete work on time. Participants were instructed to provide the actual words they would use in dealing with the situation and not just describe the general action they would perform. Messages elicited by this problem were classified as reflecting an expressive, conventional, or rhetorical design logic using the system described by O'Keefe (1988). The two authors,

working independently, classified 40 messages, achieving agreement in 87.5% of the cases. Intercoder reliability, assessed using Cohen's (1960) kappa, was .80.

Participants also completed the Broken Date problem, described earlier, in which they described what they would say to a friend who repeatedly cancelled dates. As usual, participants were instructed to provide an actual message and not just an action description. Messages elicited by this problem were classified as reflecting an expressive, conventional, or rhetorical design logic using a system developed for this investigation (see Appendix III). The authors, working independently, classified 31 messages, achieving agreement in 90% of the cases. Intercoder reliability, assessed using Cohen's kappa, was .78.

Finally, participants completed the Thought Checklist, in which they reported the thoughts they had while completing the Broken Date problem. We gave each participant the list of 121 common thoughts generated in the pretest; a blank space was provided next to each thought. Participants were asked to read the list of thoughts and mark an X in the space next to each thought they recognized as one that occurred to them when they read and responded to the Broken Date situation. The exact instructions given to participants are reproduced in Appendix II. Completing the Thought Checklist is a long and tedious task; to make the questionnaire more readable and keep participants focussed on their task, thoughts were grouped in sets that were roughly concerned with the same topic and introduced with a general question about that topic (e.g., "Which of the following thoughts about Terry's previous actions did you have?").

Analysis and Results. As a preliminary to the main analysis, we conducted a set of ANOVAS to identify those thoughts which discriminated among individuals employing

expressive, conventional and rhetorical design logics. In each ANOVA, the independent variable was message design logic as judged from performance on the Broken Date problem; the dependent variable was one of the 121 common thought units. In these analyses, and all subsequent analyses involving the Thought Checklist, participants were assigned a score of 1 if they checked a given thought unit and 0 if they did not, producing a set of 121 variables that took the values 1 and 0. In all cases where a significant effect of design logic on thought unit selection was obtained, a post hoc test was conducted using the Least Significant Difference procedure to identify those pairs of means that differed significantly. Results of these analyses are summarized in Table 1; participants employing different design logics showed differential selection patterns for 30 of the 121 common thoughts.

To determine what patterns of thoughts discriminated among participants using expressive, conventional, and rhetorical design logic, the 30 thought units identified in the preliminary analysis were entered as predictors in a discriminant analysis with message design logic (assessed by performance on the Broken Date problem) as the group classification criterion variable. The 30 thought units were all entered simultaneously. Although it is more common to employ a stepwise entry procedure rather than forced entry, the preference for a stepwise procedure reflects the typical research objective of identifying a maximally efficient procedure for discriminating between groups. Such an efficient procedure is neither necessary or even desirable from the standpoint of determining what thoughts participants see as relevant to a communication situation. Our concern was to identify, as fully as possible, the set of thoughts that characterizes an individual's representation of a communication situation, as a basis for developing the most accurate classification of that individual's approach to

message design. Hence, our preference was for descriptive completeness and accuracy of classification; we sought identify as many discriminating thoughts as possible, not the most efficient set of discriminators.

Results of the discriminant analysis showed two significant discriminant functions. Summary statistics for the analysis are given in Table 2. To aid in interpreting the functions, the matrix of correlations between discriminating variables and canonical discriminant functions was subjected to varimax rotation. Table 3 reports standardized discriminant function coefficients and correlations between thoughts and the two functions computed after rotation. Values for each function evaluated at the mean for each message design logic group are given in Table 4. These results indicate that one pattern of thought selection (the first function) is especially useful for distinguishing rhetorical communicators from conventional and expressive communicators, while another pattern of thought selection (the second function) is useful for distinguishing expressive communicators from rhetorical and conventional communicators.

The first function reflects a difference in focus of attention: whereas expressive and conventional communicators focus on what Terry has done and its subjective meaning, rhetorical communicators focus on their friendship with Terry and what can be done to maintain it. Expressive and conventional communicators were likely to score positively on this function, while rhetorical communicators scored negatively. Thoughts that were positively correlated with the first function involved expressions of irritation with Terry (Terry irritates me, I'm upset with Terry); feelings that the message producer should stop seeing Terry (I should stop seeing Terry for a while); and the belief that Terry needs to know

of the message producer's anger (Terry needs to know that I'm a little angry). By contrast, thoughts that were negatively associated with the first function expressed the importance of the relationship (I value Terry's friendship; The friendship is important to me); the importance of being understanding (I should be understanding about Terry's problems), the importance of suppressing hurt feelings (If Terry knows I feel hurt, it will make me look bad), recognition of mitigating factors behind Terry's behavior (Terry is overcommitted, Terry is active), and recognition of alternative ways to maintain the friendship (Terry and I could do something else and skip the movie).

The second function appears to reflect a difference between reacting to Terry's behavior by devaluing Terry and desiring punishment for Terry versus accepting Terry's excuse and maintaining faith in Terry's good intentions. With the second function, expressive communicators were likely to score positively, while conventional and rhetorical communicators scored negatively. Thoughts that were positively correlated with the second function involved negatively-valenced judgments about Terry's character (insecure, inconsiderate, rude, self-centered); mentions of grievances about Terry's conduct (Terry doesn't respect me, Terry should stop acting interested in seeing me and then breaking dates, Terry is insensitive to the feelings of others, Terry isn't behaving like a good friend); expressions of extreme annoyance (I'm tired of Terry's behavior, I'm sick of being let down); wishes that Terry be punished (I want Terry to feel bad, I want Terry to feel guilty, I should refuse to go with Terry tomorrow, If I refused to see Terry, Terry would miss me); and desires for reparations from Terry (Terry should apologize for being a bad friend). Thoughts that were negatively correlated with the second function involved expressions of confidence

in Terry's good faith (Terry will try to keep the appointment tomorrow night, Terry's telling the truth) and acceptance of Terry's account (I understand why Terry had to cancel our date).

The two indiscriminant functions were used to generate a classification of the cases. The test for homogeneity of variance across groups indicated that substantial heterogeneity existed, Box's $\underline{M}$ = 1870.4, approximate $\underline{F}$ (930, 24815) = 1.3622, $\underline{p} < .001$); consequently, the classification was based on the within-groups covariance matrices. Results of this analysis are reported in Table 5. Overall, 63.77% of the cases were classified correctly.

Interestingly, errors in classification were not distributed uniformly across levels of design logic. Whereas 80.6% of the rhetorical cases were correctly identified by the discriminant functions, 66.1% of the conventional cases and only 48.1% of the expressive cases were correctly classified.

Discussion and Interpretation of Study I

Before discussing the results of the discriminant analysis, it is important to emphasize that to a large extent, individuals who use different design logics reported similar sets of thoughts about the Broken Date situation. A number of thoughts were selected by a majority of communicators, regardless of design logic: Terry repeatedly cancels appointments with me; Whenever we have plans, something else seems to come up; It's okay to cancel once in a while, but not repeatedly; Terry takes me for granted; I was looking forward to seeing Terry tonight; Terry's actions hurt my feelings; Terry doesn't realize that cancelling appointments can hurt others; Terry should realize what he/she has been doing to me; Terry expects me to be understanding; Terry should put more effort into our friendship; Terry is busy; We need to get things out in the open (see Table 3).

But those who do produced rhetorical, conventional, and expressive messages disagreed about the significance of these uniformly constructed features of the situation. Expressive and conventional communicators viewed these states-of-affairs as a threat to themselves, whereas rhetorical communicators viewed them as a threat to the friendship. This observed difference is consistent with O'Keefe's model, since one key property that distinguishes rhetorical message design from conventional or expressive design is a focus on the future and the bottom-line concerns of a communicative situation. As we would expect, rhetorical message producers in Study I constructed the communication context in a way that framed actions within an overriding concern for the future of the friendship, whereas expressive and conventional communicators focussed only on the significance of Terry's conduct for their present wants and feelings.

Rhetorical, conventional, and expressive communicators also differed in how they envisioned responding to the central problem involved in the situation. Rhetorical communicators saw it as important to set their hurt feelings aside and locate alternative ways to actualize the friendship. Both conventional and expressive communicators viewed it as important to express their negative evaluation of Terry's conduct; but whereas conventional communicators demonstrated a faith in cooperative communication as a means of addressing the situation, expressive communicators dwelt on Terry's faults and failings, planned punishments, and entertained vengeful thoughts. These differences are also interpretable as consistent with the message design logic model: it posits that expressive communicators employ communication primarily to express their reactions to the behavior of others, while conventional communicators respond in an institutionally appropriate manner to their partner's

conduct, and rhetorical communicators attempt to forge common efforts that will help realize a vision of the common good.

Hence, the initial evidence gained in Study I suggests that the Thought Checklist can be usefully employed as a tool for discriminating among individuals who manifest different design logics. Different patterns of thoughts were associated with the three different design logics, and the specific character of the differences was consistent with the theoretical model. The utility of the Thought Checklist in providing an assessment of differences in communication-relevant beliefs that is independent of the message opens up a number of new avenues for research on message design logic, one of which is exemplified in Study II.

Another fairly straightforward implication of the results of Study I is that the coding system we developed for the Broken Date messages should probably be revised in light of the results of the discriminant analysis. In particular, results of the classification analysis suggested that our conceptualization of expressive message design should be revised. The nature of the required revision is pretty clearly indicated by the discriminant analysis results. In constructing the coding system, we conceptualized the key differences among messages as reflecting the operation of two functions: first, a focus on the relationship versus a focus on Terry's actions; and second, the manner in which Terry's request was handled. Comparison of this conceptual model with the two discriminant functions suggests that we were correct in interpreting the difference between expressive and conventional versus rhetorical messages as involving a shift of focus from the hedonic consequences of Terry's actions to the friendship. However, the discriminant analysis points to a different and more specific second function as important in distinguishing expressive from conventional and

rhetorical message producers: willingness to continue communicating with Terry on a basis of cooperation and/or negotiation. So results of the Thought Checklist procedure do not simply recommend a revised coding system for the Broken Date problem, they also suggest the specific lines along which such a revision should be made.

The advisability of revising the Broken Date coding system is further underwritten by the weak association between subjects' performance on the Broken Date problem and the very similar Group Leader problem: the correlation between the two scores was statistically significant but very small, $r = .16$, $p < .05$. Fortunately, results from the discriminant analysis provide an independent classification of message design logic and an entirely new source of information on which such a coding system revision can be based; no longer limited to purely formal analysis of message designs, we can now cross-validate message design logic coding systems against patterns of thought selection.

Study II: Message Design Logic and Attributions of Communicative Intentions

One question raised by Study I is whether the patterns of thoughts associated with different message designs are simply correlates of message differences or whether they are centrally involved in the meaning and effects of the message. One could imagine, for example, a model of message production in which differences in beliefs about the communication situation are thought to influence the selection of a message strategy, with differences in strategies leading to differences in effect (this is arguably the model that underwrites much current research on social influence strategies; see Seibold, et al., 1985). In such a model, there is no necessary relationship between the message producer's beliefs

and the information conveyed in the message, since what the message producer conveys--the message--is not necessarily what the message producer believe about the situation, but rather is just what the message producer ought to say in order to achieve a particular goal.

In contrast to such a model, O'Keefe (1988, in press a, in press b) has proposed that what people say is best understood as the articulation of the beliefs they see as relevant for expression at a particular point in a transaction. Her notion of message design is similar to Hermann's (Herrman, 1983; Hoppe-Graff, Herrman, Winterhoff-Spurk, & Mangold, 1985) and van Dijk's (1985) more elaborated models in proposing that message producers construct a base representation of a communicative situation that consists of a set of beliefs about the situation; message production involves the organization, selection, and expression of propositions from the base. Within such a model, differences in message design are understood as reflecting differences in situation representations and in the movement of beliefs from base representation to expression, rather than as reflecting differences in selection of a message type or strategy from a repertoire of possible message types (for a more extensive discussion of these two theoretical alternatives and some in-principle arguments against a "strategy repertoire" model, see O'Keefe, in press a).

Hence, one straightforward prediction that can be made on the basis of O'Keefe's model and the results of Study I is that the thought patterns that are characteristic of different design logics should be conveyed to message respondents as part of the meaning of the message. In Study II we tested this hypothesis. We expected that lay respondents would attribute different thoughts to message producers as a function of the design logic manifested in the message. Specifically, differences in the thought patterns associated with different

design logics should be mirrored in the attribution of thoughts to the message producer by a respondent.

We also considered the possibility that the design logics of message producer and message respondent might interact in influencing the attribution of thoughts to the message producer. In O'Keefe's model, a message signifies a pattern of thoughts; a design logic is embodied in specific beliefs about what thought patterns messages can and do signify. Consequently, it is possible that similarity in the design logics of message producer. Study II addressed the question of whether the design logic of the message respondent plays a role in message interpretation, either operating alone or in interaction with the producer's design logic.

Methods and Design

Experimental Paradigm. In Study II we presented respondents with a version of the Broken Date scenario. Respondents were asked to read a narrative about two individuals, Terry and Chris. This narrative was identical to the Broken Date scenario used in Study I, with two exceptions: respondents were not asked to imagine themselves in the situation, but simply to read about a situation involving Terry and his/her friend Chris (with Chris being the friend Terry fails to see); and the narrative was continued after Terry's request with a response by Chris. The "Chris" responses were selected from the set of messages generated in Study I. After reading the basic scenario and the "Chris" message, respondents were asked to indicate what Chris was thinking as he/she responded to Terry.

Subjects. A total of 507 undergraduates at a large midwestern university served as respondents.

Independent Variables. Two primary variables were included in the design: the message design logic of the message producer (as manifest in the message) and the message design logic of the message respondent.

Producer's message design logic was manipulated by selecting prototypical expressive, conventional, and rhetorical messages and presenting them to subsets of respondents as responses Chris made to Terry. Eight messages were selected from the Study I sample to exemplify each category of producer message design logic (for a total of 24 "Chris" messages). Selection of the messages was guided by the results of the discriminant analysis: we selected the eight messages with the highest probability, given their discriminant scores, of belonging to the class being exemplified. The 24 stimulus messages generated by this procedure are reproduced in Appendix IV. Hence, the Producer Message Design Logic manipulation involves two factors, a fixed factor for Producer Design Logic type (3 levels) and a random factor consisting of message replications within type (8 levels). In all, 165 respondents read expressive "Chris" messages, 171 read conventional messages, and 171 read rhetorical messages. The number of subjects reading any particular "Chris" message varied from 18 to 27.

Respondent Message Design Logic was assessed by asking each respondent, prior to reading the Broken Date scenario, to address the Group Leader problem. The procedures used in administering and coding the Group Leader problem were identical to those employed in Study I. We used the Group Leader problem to assess respondent's design logic because (a) asking respondents to complete the Broken Date scenario would interfere with their subsequent evaluation of the "Chris" message; and (b) the Group Leader problem is the most

widely used assessment of message design logic. Nonetheless, we were somewhat concerned about equating design logic as assessed by the Group Leader problem with design logic as assessed by the Broken Date problem, particularly in light of the low correlation between the two scores observed in Study I. These concerns were substantially allayed by the fact that within the sample of 24 prototypical message producers who provided stimulus messages for Study II, the correlation between design logic on the two problems was $r = .49$, $p < .05$.

The two authors, working independently, coded a sample of 30 Group Leader messages produced in Study II, with exact agreement in 87 percent of the cases, kappa = .78. Each author then coded a portion of the remaining messages. Based on their Group Leader scores, there were 137 expressive, 261 conventional, and 109 rhetorical respondents.

Dependent Measures. After respondents completed the Group Leader problem, they read the Broken Date scenario and responded to a version of the Thought Checklist developed in Study I. Respondents were given the list of 121 common thoughts and asked to indicate any thoughts Christ had when responding to Terry. The 121 thoughts were numbered consecutively in the questionnaire; respondents attributed thoughts to Chris by marking the number of each attributed thought on a machine scorable answer sheet.

Although ultimately we plan to analyze responses across the entire Thought Checklist, in the present paper we report only results involving the 30 discriminating thoughts identified in Study I (see Table 3).

Analysis and Results

The primary analysis employed was 3 X 8 X 3 unweighted means analysis of variance; separate univariate analyses were conducted for each of the 30 discriminating

thoughts. The first factor was producer's design logic (a fixed factor; 3 levels: expressive, conventional, rhetorical); the second factor was the message replication factor (a random factor, nested within producer's design logic; 8 levels); and the third factor was respondent's design logic (a fixed factor; 3 levels: expressive, conventional, rhetorical). Treatment of the message replication factor as a random factor was mandated by our interest in generalizing about effects of message types (expressive, conventional, and rhetorical) and influenced the selection of appropriate error terms for the analysis of variance (see Jackson & Jacobs, 1983; Keppel, 1982).

Results related to the main effects of producer's design logic on all 30 discriminating thoughts are summarized in Table 6. Significant main effects of producer's message design logic were obtained for 15 of the 30 discriminating thoughts; for six additional thoughts, the main effect was marginally significant ($p < .10$). In all but two cases (Terry should apologize for being a bad friend; Terry's telling the truth), the effects were in the predicted direction.

One of these significant main effects (for "Terry will try to keep the appointment tomorrow night") was contained in a significant interaction with respondent's message design logic, $F(4,42) = 2.75$, $p < .05$. Inspection of the means for this effect in Table 7 shows that expressive message producers failed to reproduce the pattern of means in the sample of message producers: instead, the higher the level of design logic, the more likely it was for an expressive respondent to attribute this thought to the message producer. Conventional communicators saw it as more likely for conventional and rhetorical producers to have this thought, and rhetorical respondents came closest to reproducing the actual pattern of means.

There were only three significant main effects for respondent's message design logic across the 30 thoughts. A significant effect on "I should stop seeing Terry for a while," $F(2,42) = 4.03$, $p < .05$, reflected the fact that conventional ($M = .322$) and expressive ($M = .285$) respondents were more likely to make this attribution than rhetorical respondents ($M = .211$). A significant main effect on "Terry should apologize for being a bad friend," $F(2,42) = 5.82$, $p < .006$, likewise showed that expressive ($M = .211$) respondents were more likely to make this attribution than rhetorical respondents ($M = .119$).

Finally, respondent's design logic had a main effect on "Terry Doesn't respect me," $F(2,42) = 4.13$, $p < .05$; this effect was contained in a significant interaction between producer's and respondent's design logic, $F(4,42) = 2.76$, $p < .05$. As the means in Table 8 indicate, once again, expressive and conventional respondents were more likely to make this attribution than rhetorical respondents. Conventional respondents were essentially uninfluenced by the type of "Chris" message they received, while expressive respondents were especially likely to attribute this belief on the basis of expressive messages, and rhetorical respondents were especially unlikely to attribute this belief on the basis of conventional or rhetorical messages.

For two of the thoughts ("Terry's insecure" and "I want Terry to feel bad") there were significant interactions between respondent design logic and messages within producer's design logic, respectively, $F(42,435) = 1.56$, $p < .05$ and $F(42,435) = 1.59$, $p < .05$. However, there were no other significant effects involving these two thoughts.

There were no other significant effects in these 30 analyses.

Discussion of Study II

The preliminary results of Study II are generally consistent with the hypothesis that in attributing thoughts to message producers, message respondents would reproduce the patterns of thought selection associated with different design logics. For roughly two-thirds of the discriminating thoughts, the message producer's design logic had a straightforward effect on thought attribution in which the order of the means was substantially the same as their order in Study I. In interpreting this pattern of findings, it should be noted that in the majority of cases where no significant effect obtained there were no substantial differences among the 24 stimulus messages. Three of these thoughts ("I value Terry's friendship," "The friendship is important to me," and "Terry doesn't seem to have enough time for our friendship") were selected by a large proportion of the 24 prototypical message producers, regardless of design logic. In three more cases ("Terry's insecure," "If I refused to see Terry, Terry would miss me," and "If Terry knows I feel hurt, it will make me look bad"), very few of the 24 prototypical message producers selected the thought. The failure to find respondents discriminating in their attribution to these thoughts should not be too surprising given the magnitude of the differences among the message producers.

At the same time, however, for some thoughts respondents displayed successful discrimination in their thought attributions in the face of small mean differences; this was the case, for example, with "I should be understanding about Terry's problems" and "I want Terry to feel guilty." Moreover, the absolute magnitude of the mean frequencies of thought selection by the individuals who produced the stimulus messages often differed substantially from the frequencies of attribution by respondents. Hence, the results do not provide the

strongest possible evidence for our hypothesis, even though they are largely consistent with it. Clearly, followup research should seek to clarify how thoughts are selected for expression from the situation representation, and hence why some but not all discriminating thoughts are conveyed to message respondents.

Conclusions

There are three general conclusions to be drawn from the results of Studies I and II. First, independent of the details of O'Keefe's analysis of individual differences in design logic, the results lend credibility to the general sort of explanation of message production O'Keefe, Herrmann, and van Dijk (among others) have suggested. In the study of functional communication competence, the received view of message production has been the strategic choice model (see Seibold et al., 1985), which views message-making as a process of selecting a message action, type, or strategy (conceptualized as a context-independent message format), and then realizing that strategy with situation-specific message content. A message design logic model offers a very different explanation of message construction: people construct representations of situations, and then select ideas for expression from their situation representations. Different types of messages are produced when individuals construct systematically different situation representations and/or systematically select different elements for expression.

Studies I and II provide support for a design logic explanation by showing that (a) different types of messages are associated with systematically different ideas about the situation; and (b) types of messages convey the patterns of thoughts that are associated with their production to respondents. That is, Studies I and II support the view that the cognitive

foundation of message type is the patterning and expression of situation-specific thoughts and not the abstraction, selection, and recognition of message acts, types, or strategies.

Second, these two studies provide support for the view that there are three different design logics that individuals might employ in complex interpersonal situations: expressive, conventional, or rhetorical. Results of Study I showed that persons classified into one of these three groups on the basis of the kind of message they produced did have different representations of the situation. Results of the discriminant analysis showed that the theoretical model of design logic differences in dealing with the Broken Date situation (as embodied in the message coding system) was partially successful in accounting for differences in situation representations: one of the two sets of message features used in constructing the message analysis corresponded fairly precisely to the first function identified by the discriminant analysis; the other set of message features did not correspond as well to the second discriminant function.

Moreover, results of Study II indicated that messages embodying different design logics are understood by respondents as signifying different sorts of beliefs and intentions. Taken together, results of the two studies provide strong support for the view that three different logics guide the process of constructing the situation and selecting elements from the situation representation for expression.

Finally, the findings of Studies I and II suggest that the Thought Checklist procedure has a great deal of potential utility for investigations of message design logic. Clearly, further research modelled on Study I can now be done to test the goodness-of-fit of the theoretical model of design logic constructed for a particular task and the specific message

analysis system developed to operationalize that theoretical model. Similarly, the Thought Checklist procedure makes it possible to design methods, independent of the message analysis, for determining what an individual's situation representation is and for investigating the ways in which an individual's representation of the situation is related to the form, meaning, and effects of his or her message.

In sum, while their results are as yet preliminary and not entirely unequivocal, the investigations reported in this paper underwrite the utility of a design logic account of communication, the plausibility of O'Keefe's specific hypothesis that the use of three different design logics accounts for an interrelated set of individual differences in message production, and the usefulness of the Thought Checklist procedure as a method for investigating what thoughts individuals are likely to have and feel are relevant for expression in interpersonal situations.

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APPENDIX I

BROKEN DATE PROBLEM

Imagine that you have a friend, Terry, and you and Terry have been close friends for three years. This last year Terry never seems to have time for you. Terry has cancelled a number of activities the two of you had planned because of meetings and other commitments. Your patience has been wearing thin lately: in the last week Terry has cancelled out on a lunch engagement and on a plan to go bowling with you.

You have plans to see a movie with Terry tonight at 7 o'clock. You are really looking forward to seeing this movie and to having a good time with your friend. At 3 o'clock Terry calls you to cancel out. Terry says, "I'm really sorry but there's a meeting at 8:00 that I really have to attend. I totally forgot about it when we made our plans. Can we go to the movie tomorrow night?"

What would you say to Terry if you found yourself in this situation? In the space below, write what you would say; do not describe the general action you would take--instead try to put in your own words what you would actually say to deal with this situation.

APPENDIX II

INSTRUCTIONS FOR THOUGHT CHECKLIST

Now we would like to know what you were thinking as you decided what to say to Terry. The following pages list a number of different kinds of thoughts that people have told us they had as they responded to this situation. Of course, different people have different thoughts about a situation like this one: some of the thoughts on this list will be ones that occurred to you, but others will not be similar to your own thoughts.

We would like you to read through this list and mark an X in the space next to any thought that you recognize as one that occurred to you when you read and responded to the situation involving Terry. If a thought seems very similar to one of yours, but just worded a little differently, then mark it with an X even though it may be a little different from your own. But don't just select a thought from this list because it is somewhat similar to your own--only pick thoughts from the list that you feel are the thoughts that occurred to you as you imagined the situation and decided what to say.

Some of the thoughts on the list that didn't occur to you when you first responded to the situation may strike you now as being very true. Do not select thoughts from the list just because you now see they are true. We are interested in knowing which thoughts you were thinking as you composed your message, not which ideas you think are true, so select only thoughts you recognize as your own natural response to the situation.

When you have finished reading these instructions, turn the page and begin.

APPENDIX III

BROKEN DATE PROBLEM CODING MANUAL

Note: This is the unrevised coding system employed in Study I. A revised version of this coding manual is in preparation and will be available from the authors. For additional message examples, see Appendix IV.

There are two functionally significant issues in the Broken Date situation which are handled in characteristic ways by persons using expressive, conventional, and rhetorical message design systems: (1) the meaning of Terry's behavior for the relationship between Terry and the message producer (MP); and (2) Terry's request to postpose going to the movie till tomorrow night.

Expressive Messages

Expressive messages focus on Terry's behavior, which is represented as a transgression or personal rejection, and may act out hurt feelings by punishing Terry with either rejection or verbal abuse. They treat the meaning of Terry's cancellations as being that Terry is a bad person; they ignore the issue of what to do about the movie, except by implication when Terry is told to call again when he/she has more free time.

> Terry, you're a jerk! You're not a real friend! I don't want to be your friend anymore if you're never going to treat me like a friend. You're insensitive and uncaring! Good Bye!

> Terry, I don't understand. We've been friends for three years. I think that you are able to make time for an old friend. I'm busy too. Every time we make plans, I spend time getting ready, etc. Your constant cancelling infringes on my time.

> Don't call me, I'll call you.

> Sorry, I don't think we should plan on going tomorrow night. You've been backing out on everything lately, so why don't you give me a call sometime when you are free and we'll stop planning things. I suggest you start to think of others instead of just yourself a little bit more.

> No, Terry, go to hell. I'm sick of you blowing me off. Why don't you call me when you can fit me into your precious schedule.

> Gosh Terry I don't know if we can or not. Are you going to puss out on me again or can it be my turn to do that to you tomorrow night? I thought we were friends, but friends don't treat friends like dogshit. When, or if, you can figure that out I'll think about doing something with you again.

> What's up with you? Why are you suddenly so busy when we make these plans?

Conventional Messages

Conventional messages treat the meaning of Terry's behavior in terms of its relationship to the rights and obligations of friends to each other (discussing the priority to be given to friendship obligations over other agenda items), and deal with the issue of the movie either by refusing to go (No, because you don't keep your commitments, etc., or Sorry, I'm busy tomorrow) or by agreeing to go (Sure, it's okay, or Sure, but be sure not to cancel again).

No, I don't think I can make it tomorrow night. Instead, let's decide and go out at a time we both can make it most definitely. Frankly, I am very fed up with the cancellations you have been making lately.

Terry, why am I not surprised that you cancelled. Everytime we have plans, you find something more important to do. I value our friendship but obviously it's not a priority of yours. Either work some time into your life for me, or don't bother making the plans. It's unfair. Obviously you need to evaluate our friendship. You can't give 100% dedication to everything under the sun--pick some that are important and leave the others alone.

I understand you've got a lot to do, but if you can't fit our friendship into your schedule, I wish you'd just say so.

Sure--I guess it's okay. But I'm really getting tired of you postponing our plans. Tomorrow night, I'm going to the movie. Tell me now if you are going to go. And this time stick to your word. If you are going to go with me then that's great but if there is even a small chance that you think you can't, tell me, and I'll find someone else to go with. Why do you always leave me hanging like this. I thought we were good friends who could take time out for each other. But lately it seems like I'm the last THING on your list. I do hope you will be sincere about your commitments. And I do hope you will be at the movie tomorrow.

Yeah, I guess. But I'd like you know that I'm really getting tired of you backing out of our plans. I mean, why make plans when you cancel all of them? I'd say just call me when you find yourself with nothing to do, except then I'd never speak with you.

OK we can go tomorrow--I'm free. What meeting do you have to do to? Talk to you later.

Rhetorical Messages

Rhetorical messages deal with the relationship issues by emphasizing the importance of the friendship to the message producer and explicitly discussing the way cancellations negatively influence the relationship. Rhetorical messages deal with the movie issue by suggesting some alternative scheme which makes it less likely that Terry will be likely or able to cancel and thereby cause problems.

Terry, are you too busy for me or what? You're a great friend and I really enjoy being with you. That's why I keep planning things for us to do. You either are not admitting to me that you don't want to spend time with me or you're kind of irresponsible in terms of scheduling. Which is it, do you want me to stop bugging you or did you lose your I-book?

Terry, why do you keep doing this to me? I really care about you, but all I've gotten so far this year are excuses. Can you please make sure we can get together sometime this week? I get so hurt--I'd just like to get to see you, that's all. All you've had time for are meetings, meetings, meetings, and I know it's selfish, but I feel really left out.

I feel hurt that you've cancelled all of our previous activities. I should tell you, "no, I won't see the movie tomorrow," but you're still my friend and I do enjoy spending time with you. So why don't you give me a call tomorrow night. If we're both free, we'll see the movie. This way, one of us won't be waiting on the other if something comes up. Well, I guess it's OK. Call me tomorrow and we'll see if I can go.

Okay, Terry, I understand. We really should get together though because we haven't done anything in a good long while. I'd kinda like to do something together and get away from school and all the other stuff. I'd definitely like to go tomorrow. We can go to the late show. I'll call you before, and I'll stop by then we'll go. I'll call about 8:30.

Okay, Terry, but are you sure you can make it tomorrow night or are you going to cancel out on me again? Lately, Terry, you have placed our friendship second to your meetings and activities. I don't even remember the last time we went out together, do you? I have no plans for tomorrow night but I'm not going to make tentative plans only for you to cancel them. Give me a call tomorrow around 7:00 and tell me if you want to go out.

APPENDIX IV

STIMULUS MESSAGES USED IN STUDY II

Expressive Messages

(1) Tomorrow night? Are you sure you don't have something else planned?! Why do you keep breaking our plans? I was really looking forward to going out with you, but you never go when you say that you want to. Why do you put me in this situation of always waiting around for you to call me? Is that really what friendship is? I would really understand more if you would just call me once and tell me what's going on. I understand if you're too busy to go out but at least you could call me. I wish you wouldn't make plans to try and make our relationship better and then make things worse by breaking our date. Why don't you just tell me what you want to do and not make plans you'll break?

(2) You know something, Terry? I think I just remembered I have a meeting tomorrow night. Give me a call when your busy schedule has an opening and if you decide I'm important enough to fill it.

Chris hangs up--Click!

(3) Terry, I don't really want to make a date with you anymore because you keep cancelling out. If you don't want to go out with me, don't ask. If you want to go out, check to see when all your meetings are and work around them.

(4) Terry, we've been close friends for about three years now, but this last year you seem to avoid me by blowing me off all of the time. If you don't want to do something then don't make the plans in the first place. If you want to do something that you won't cancel out on give me a call. Bye.

(5) What meeting do you have at 8:00? You know in the past weeks and even year you have been cancelling our dates frequently. Excuse me if you think I'm reading too much into things but I get the feeling that you cancel because you don't want to see me. Either that or I don't mean enough to you for you to keep a simple lunch or bowling date.

(6) Forget this b.s., either make an effort toward something we do together or go screw over someone else.

(7) What is going on? Have I done something wrong that you aren't telling me? If we are such great friends for so long, you shouldn't be blowing me off. I probably should stop making plans with you.

(8) Again? Well, that shouldn't really surprise me. Call me sometime when you can fit me into your schedule. And I just want to say that I'm sick and tired of being your little puppy.

Conventional Messages

(1) Terry, we used to be such close friends, but now it seems that your work and other commitments are more important than our friendship. This has come on so suddenly; have I done something to make you want to avoid me? I understand that you have other things to do, but they can't take up all of your time. I've tried to understand and I've been patient with you, but I'm just tired of being stood up and cancelled out by you. Tell me what the problem is or our friendship is over.

(2) Fine. We'll see it tomorrow. But try to tell me your plans a little sooner. I'm getting kind of sick of you always cancelling out. It's not me, is it? I'm not boring or something, am I? If you cancel out tomorrow, so help me I'll kill you. I'm kind of mad, but I guess meetings are pretty important. So long as you're not lying to me or anything, I think I'm all right. Anyhow, I'll see you tomorrow, unless I'm busy that is.

(3) Terry, it's ok, but we better go to the movie tomorrow or I won't make the effort of trying to go out. Thanks for calling.

(4) Sure, but I'll be pretty honked off if you cancel again. See you tomorrow.

(5) I guess we can go tomorrow night, but I was really looking forward to seeing and being with you tonight. I wish we could spend more time together. I feel as if our friendship is slipping and we're growing apart. I understand your other obligations, but I miss spending time with you.

(6) Terry, I know you are really busy and that your meetings and group activities are important to you. But, you're really a good friend and I miss all the fun we have going out together. I was really looking forward to the movie and seeing you tonight since all our other plans seem to be cancelled so often. It is hard to always be second to your meetings. I'd rather not try to make plans if you're going to keep cancelling them.

(7) Fine. That's okay. I didn't want to go out anyway. You don't like me any more, do you?

(8) What's the deal? It doesn't seem like you have time for me any more. Don't you like me? What's the matter? Are there any problems that I should know about? If you're sure you can go tomorrow--fine--but if you're going to have something else come up then I'll probably go with someone else tonight.

Rhetorical Messages

(1) Terry, you know we are good friends, yet you haven't had much time lately to see me. But that's okay, and I understand you're busy or whatever. If something comes up for tomorrow night, I will plan on doing that, yet if you actually CAN make the movie, give me a call tomorrow. Hope to see you soon.

(2) Well, we can make plans for tomorrow, but I'm sure as far as you're concerned it is not set in stone. I've tried my best with you, and if you are available tomorrow I would love to go, I just hope you consider me if other engagements arise. We are friends and I will always be here for you, but I will not be taken for granted. Why don't you call me tomorrow and let me know how your agenda looks?

(3) We'll try but what happens tomorrow night when you've got another meeting that just suddenly pops up. You've got to start thinking about your personal priorities. I mean I could understand if you were out with your girlfriend, but this meeting stuff all the time is getting ridiculous. Think about what's going to make you happy later in life: being a super career success, or being a success at what you do and still have a few friends. It's your decision. Just don't string everybody along. If you make a commitment to me, I'd like to think that I was important enough that you wouldn't cancel out to go to some meeting.

(4) Terry, go ahead and cancel. Can you explain to me one thing--why do you always break our plans? I realize we're both very busy, but I feel like our friendship is on hold. We've done a lot together, but lately it seems as if our friendship is getting weaker. Let's make a deal. Go to your meeting, and then come over, no matter what time it is. If it's not too late, we'll go to a late movie. It it is too late, we'll just stay here and visit. We have lots of catching up to do. Have fun at your meeting, buddy.

(5) Terry, I really wanted to spend time with you tonight. We never get to do anything together any more and I really miss that. We used to be such close friends and it seems we are drifting apart. If you really want to go to the movie tomorrow night with me, we can. But I just wanted you to know that sometimes I feel bad when you cancel.

(6) I understand that you have meetings and everything, but I'm really sick of making plans with you and having them broken all the time. If you want to go out tomorrow night, call me up about 6:30 and if I'm free I'll go with you. I've broken plans with other people to be with you and it's been really frustrating. So just call me tomorrow evening and I'll see if I can go.

(7) All right. I could wait until tomorrow to see you. I've really been wanting to talk to you lately. I feel like since I don't see you that often, I'm not as close to you as before. Could I go to the meeting with you tonight? I think it'd be fun.

(8) Terry, I know that you are involved in a lot of things and that you are busy, but I'm getting tired of your constantly breaking our dates. I can't just be told on a whim that things are cancelled. I am also involved with other things and sometimes I miss meetings or other things so we can go out. Could you please consider maybe saying "I can't be there because I have a previous engagement" and get the information the next day?

TABLE 1

COMMON THOUGHTS ABOUT THE BROKEN DATE SITUATION:
FREQUENCY AS A FUNCTION OF MESSAGE DESIGN LOGIC

THOUGHTS	OVERALL	EXP	CON	RHE	F(2,204)	p
I should let Terry know how I feel about the cancellation.	.70	.81	.64	.74	2.7347	.067
Terry expects me to be understanding.	.66	.60	.68	.71	.7215	.487
Whenever we have plans something else always comes up.	.65	.79	.60	.61	2.8848	.058
Terry needs to know that I'm a little angry.	.65	.71^{r}	.70^{r}	.35^{ec}	7.5270	.001
Terry should realize what he/she has been doing to me.	.64	.75^{c}	.59^{e}	.65	2.0785	.128
Terry takes me for granted.	.64	.65	.64	.61	.0697	.937
Terry repeatedly cancels appointments with me.	.61	.63	.62	.52	.6647	.516
Terry doesn't seem to have enough time for our friendship.	.61	.75^{r}	.60	.42^{e}	4.6897	.010
It's okay to cancel once in a while, but not repeatedly.	.60	.58	.59	.68	.4722	.624
The friendship is important to me.	.57	.46^{r}	.56^{r}	.77^{ec}	4.0058	.020
Terry is busy.	.55	.52	.56	.55	.1502	.860
Terry should put more effort into our friendship.	.55	.60	.53	.55	.2992	.742
Terry's actions hurt my feelings.	.54	.65	.49	.55	1.9462	.146
Terry doesn't realize that cancelling appointments can hurt others.	.54	.60	.48	.65	1.8037	.167
I was looking forward to seeing Terry tonight.	.53	.52	.50	.68	1.5895	.207
Terry isn't behaving like a good friend.	.53	.67^{cr}	.51^{e}	.35^{e}	4.2686	.015
Terry is active.	.52	.40^{r}	.51^{r}	.74^{ec}	4.6293	.011
We need to get things out in the open.	.51	.63^{c}	.46^{e}	.52	2.2614	.107
Terry is inconsiderate.	.49	.67^{cr}	.45^{e}	.35^{e}	5.1579	.007
Terry doesn't place a high priority on our friendship.	.48	.58	.45	.45	1.2209	.297
Terry is overcommitted.	.48	.40^{r}	.47^{r}	.68^{ec}	3.1037	.047
I feel disappointed.	.48	.38	.48	.61	2.5087	.130
Terry irritates me.	.46	.48^{r}	.51^{r}	.26^{ec}	3.2088	.043
I value Terry's friendship.	.46	.44^{r}	.40^{r}	.74^{ec}	6.0383	.003

TABLE 1 (CONTINUED)

THOUGHTS	OVERALL	EXP	CON	RHE	F(2,204)	p
Terry needs to know that I feel hurt.	.45	.54	.40	.52	1.8560	.159
Our friendship needs to be put back on track.	.44	.35	.46	.52	1.3901	.251
I'm tired of being patient with Terry.	.44	.50	.47	.26	2.6718	.072
I'm upset with Terry.	.44	.56[r]	.45[r]	.23[ec]	4.4903	.012
Terry thinks people should work around his/her schedule.	.44	.50	.44	.35	.8359	.435
Terry should organize time better.	.44	.46	.43	.48	.1986	.820
I should be firm in dealing with Terry.	.43	.50	.43	.35	.8614	.424
We shouldn't make definite plans again until Terry has more free time.	.43	.44	.44	.39	.1666	.847
Terry ought to have time for me.	.43	.50	.40	.42	.8209	.442
If I agree to go tomorrow, Terry will probably cancel that too.	.42	.44	.39	.48	.5761	.563
If Terry has a problem with me, he/she should say so.	.42	.54[c]	.37[e]	.42	2.1220	.122
Terry ought to explain these repeated cancellations.	.41	.46	.40	.35	.4870	.616
I'm sick of being let down.	.41	.56[c]	.34[e]	.45	3.8411	.023
I'm tired of Terry's behavior.	.39	.58[cr]	.39[er]	.10[ec]	10.2020	.000
Terry is a close friend.	.38	.35	.37	.45	.4776	.621
I should give Terry another chance.	.38	.29[r]	.39	.52[e]	2.1662	.117
I could go to the movie with someone else.	.37	.40	.35	.39	.2846	.753
Talking with Terry about the friendship is important.	.36	.31	.33	.55	2.9762	.053
Terry should call me back when he/she has time for a long talk.	.36	.31	.39	.35	.4994	.608
Terry should stop acting interested in seeing me and then breaking dates.	.35	.50[cr]	.34[e]	.16[e]	5.1905	.006
Terry is insensitive to the feelings of others.	.35	.52[cr]	.31[e]	.23[e]	5.1075	.008
I want to spend time with Terry.	.35	.29	.34	.48	1.6945	.186
I don't know what Terry's motives are.	.34	.35	.33	.39	.1746	.839
I'm busy too, but I don't let that interfere with seeing Terry.	.33	.37	.31	.35	.2482	.780
Terry should be the one to make plans in the future.	.33	.25	.37	.29	1.3335	.266

TABLE 1 (CONTINUED)

THOUGHTS	OVERALL	EXP	CON	RHE	F(2,204)	p
Terry ought to see that cancelling appointments is bad behavior.	.33	.38	.34	.23	1.1181	.329
Terry should keep appointments.	.31	.31	.32	.26	.2391	.788
Terry is a good friend.	.30	.27	.29	.42	1.1737	.311
This isn't the only friendship I have.	.30	.37	.31	.16	1.9724	.142
Terry is disorganized.	.29	.25	.29	.35	.5137	.599
Terry doesn't consider the needs and feelings of others to be important.	.29	.37	.26	.26	1.0960	.336
Terry wants me to understand what is happening in this situation.	.29	.21	.29	.42	2.0484	.132
Terry needs to understand the consequences of cancelling appointments.	.29	.29	.27	.35	.3879	.679
I should be understanding about Terry's problems.	.28	.19[r]	.27[r]	.45[ec]	3.3996	.035
I should refuse to go with Terry tomorrow.	.27	.40[r]	.27[r]	.03[ec]	7.1783	.001
Terry's irresponsible.	.27	.35	.27	.13	2.3662	.096
Terry tries to be too involved.	.27	.21	.27	.32	.6655	.515
Terry ought to take responsibility for our friendship.	.26	.21	.27	.26	.3738	.689
Terry should make fewer commitments to others.	.26	.23	.26	.29	.1818	.834
Terry's using activities as an excuse not to see me.	.26	.33	.26	.16	1.3865	.252
I should stop seeing Terry for a while.	.25	.37[r]	.26[r]	.03[ec]	6.0195	.003
I want Terry to feel guilty.	.24	.40[cr]	.22[e]	.06[e]	6.9268	.001
Terry will try to keep the appointment tomorrow night.	.24	.10	.28	.32	4.2249	.016
Terry should be grateful to me for being understanding.	.24	.15	.24	.39	2.9237	.056
I want Terry to feel bad.	.24	.40[cr]	.21[e]	.06[e]	7.1887	.001
Terry thinks I want to do things with him/her.	.24	.25	.23	.29	.2918	.747
Terry feels bad about cancelling the date.	.23	.21	.22	.32	.8405	.433
I understand why Terry had to cancel our date.	.23	.10[cr]	.26[e]	.35[e]	4.3607	.014
I want Terry to go out with me.	.23	.19	.23	.29	.5222	.594
Terry would like to see me tomorrow night.	.22	.15	.24	.26	.9528	.387

TABLE 1 (CONTINUED)

THOUGHTS	OVERALL	EXP	CON	RHE	F(2,204)	p
We should get together at a time of of Terry's choosing.	.22	.45	.22	.13	1.1179	.329
Terry wants to do the movie tonight but can't because of a meeting.	.21	.13	.24	.23	1.2769	.281
It would be better if Terry weren't so sure of my friendship.	.21	.19	.20	.26	.2869	.751
Terry was considerate to call me.	.21	.13	.23	.29	1.5698	.211
Terry should know that I understand about the cancellation.	.21	.10	.24	.26	2.6762	.071
Terry is self-centered.	.20	.33[cr]	.17[e]	.10[e]	4.1442	.017
Terry's avoiding me.	.20	.29	.18	.16	1.5932	.206
I should not make dates with Terry in the future.	.20	.29	.19	.10	2.4220	.091
Terry's telling the truth.	.19	.08[c]	.24[e]	.19	3.2537	.041
I want more control in this relationship.	.19	.29	.18	.10	2.5630	.080
Terry has a problem with me he/she is afraid to bring up.	.19	.25	.17	.19	.7587	.470
Terry is rude.	.18	.29[e]	.17	.06[e]	3.5258	.031
If Terry knew there was a problem between us, he/she would be worried.	.18	.19	.15	.29	1.5738	.210
I can make it tomorrow.	.17	.08	.19	.26	2.6624	.072
Terry has personal problems and obligations I don't know about.	.16	.21	.15	.13	.6132	.543
Terry should apologize for being a bad friend.	.15	.27[cr]	.12[e]	.10[e]	3.6200	.029
Terry doesn't respect me.	.15	.27[c]	.10[e]	.16	4.4189	.013
I want to do to Terry what he/she did to me.	.15	.19	.15	.06	1.2571	.287
Terry thinks it is important to keep commitments.	.14	.08	.17	.10	1.5700	.211
I should be supportive to Terry.	.14	.13	.13	.16	.1090	.897
I really want to see this movie.	.14	.12	.16	.13	.3448	.709
Terry acts responsibly about attending meetings.	.14	.12	.18	.06	1.5203	.221
Terry is selfish.	.14	.15	.13	.13	.1011	.904
Terry feels our friendship is stale.	.12	.15	.09	.16	1.1199	.328
Terry wants to break off our friendship.	.11	.10	.12	.10	.1502	.861

TABLE 1 (CONTINUED)

THOUGHTS	OVERALL	EXP	CON	RHE	F(2,204)	p
If I refused to see Terry, Terry would miss me.	.11	.21cr	.09[e]	.03[e]	4.0428	.019
Terry's a liar.	.11	.15	.11	.03	1.4580	.235
I don't want Terry to know that I feel hurt.	.11	.08	.10	.16	.7256	.485
Terry should promise not to cancel again.	.11	.13	.12	.03	1.1786	.310
Terry would respect me for being firm.	.10	.08	.10	.10	.1614	.851
The friendship is important to Terry.	.10	.06	.14	.03	2.2403	.109
Terry is ambitious.	.10	.04	.12	.10	1.4277	.242
If I criticize Terry it will hurt our friendship.	.10	.08	.09	.16	.8975	.409
Terry and I could do something else and skip the movie.	.10	.12[r]	.06[r]	.26[ec]	5.8381	.003
Terry cares about me and my feelings.	.08	.08	.10	.03	.6917	.502
Terry should cancel other commitments rather than appointments with me.	.08	.10	.08	.06	.1317	.877
Terry is highly motivated.	.06	.06	.06	.06	.0146	.986
Terry's insecure.	.06	.13[c]	.04[e]	.03	3.1035	.047
If Terry knows I feel hurt, it will make me look bad.	.06	.06	.04[r]	.16[c]	3.1476	.045
Terry should be put on the defensive.	.05	.06	.05	.03	.1349	.874
Terry should skip the meeting tonight.	.05	.06	.05	.03	.1349	.874
Terry would like it if the situation were cleared up.	.05	.04	.06	.06	.1626	.850
Terry is a leader.	.04	.08	.03	.00	1.7201	.182
Terry's guilty.	.03	.02	.03	.03	.1158	.891
Terry is an overachiever.	.03	.06	.02	.00	1.2717	.282
Terry is a happy person.	.02	.00	.03	.03	.8541	.427
Terry knows too many people.	.00	.02	.00	.00	1.4976	.226

Note: A superscript accompanying a mean value refers to the means from which it differs significantly.

TABLE 2

SUMMARY STATISTICS FOR THE TWO DISCRIMINANT FUNCTIONS

Function	Eigenvalue	Percent of Variance	Canonical R	Wilk's Lambda after removal of function	Chi-square	df	P
0				.5184	124.488	60	.0000
1	.5170	65.56	.5838	.7865	45.522	29	.0262
2	.2715	34.44	.4621				

TABLE 3

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS OF 30 THOUGHTS AND POOLED-WITHIN-GROUPS CORRELATIONS BETWEEN THOUGHTS AND DISCRIMINANT FUNCTIONS AFTER ROTATION

Thought	Function 1 Coefficient	Function 1 Correlation	Function 2 Coefficient	Function 2 Correlation
Terry needs to know that I'm a little angry.	.4062	.3692*	- .1167	.0810
I value Terry's friendship.	- .3912	- .3449*	.0763	.0068
Terry and I could do something else and skip the movie.	- .4522	- .3420*	.2657	.1054
I should stop seeing Terry for a while.	.2956	.2557*	- .0848	.2520
Terry irritates me.	.0244	.2511*	- .3636	- .0024
If Terry knows I feel hurt, it will make me look bad.	- .4213	- .2514*	- .1496	.0165
Terry is active.	- .2630	- .2288*	.0102	- .2135
I'm upset with Terry.	.1948	.2217*	- .1078	.2163
The friendship is important to me.	- .2090	- .2142*	- .1628	- .1963
Terry is overcommitted.	- .1022	- .2053*	- .1869	- .1413
I should be understanding about Terry's problems.	.1116	- .2024*	.0147	- .1720
I want Terry to feel bad.	.0490	.1604	.2118	.4138*
I want Terry to feel guilty.	.2067	.1692	.1235	.3963*
Terry is insensitive to the feelings of others.	.0163	.0725	.0584	.3865*
Terry doesn't respect me.	- .2139	- .1039	.2072	.3865*
Terry is inconsiderate.	- .1471	.0849	.1536	.3857*
I'm tired of Terry's behavior.	.2785	.2948	.2361	.3840*
Terry will try to keep the appointment tomorrow night.	.0817	- .0351	- .2711	- .3687*
I'm sick of being let down.	- .2087	- .1269	.1844	.3489*
Terry should apologize for being a bad friend.	- .0363	.0221	.0530	.3449*
Terry is self-centered.	- .0215	.0801	.1450	.3434*
If I refused to see Terry, Terry would miss me.	- .0026	.0790	.4227	.3393*
I understand why Terry had to cancel our date.	- .0858	- .1042	- .0825	- .3381*
Terry's telling the truth.	.6146	.0726	- .1393	- .3347*
Terry's insecure.	- .0274	.0058	.2256	.3235*
Terry should stop acting interested in seeing me and then breaking dates.	.0162	.1772	.1446	.3132*
Terry isn't behaving like a good friend.	- .0862	.1444	.0169	.3005*
I should refuse to go with Terry tomorrow.	- .0753	.2680	.0229	.2928*
Terry doesn't seem to have enough time for our friendship.	.3265	.1735	.0835	.2922*
Terry is rude.	- .0978	.1265	- .0728	.2775*
Percent of variance after rotation	63.43		.36.57	

TABLE 4

GROUP MEANS FOR EACH DISCRIMINANT FUNCTION

Group	Function 1	Function 2
Expressive	.1456	.9195
Conventional	.3539	- .2950
Rhetorical	-1.6597	- .3623

TABLE 5

CLASSIFICATION RESULTS

Actual Group	Number of Cases	Predicted Group Membership		
		Expressive	Conventional	Rhetorical
Expressive	52	25 (48.1%)	19 (36.5%)	8 (15.4%)
Conventional	124	26 (21.0%)	82 (66.1%)	16 (12.9%)
Rhetorical	31	1 (3.2%)	5 (16.1%)	25 (80.6%)

Percentage of cases correctly classified: 63.77%

TABLE 6

RESULTS FOR THE MAIN EFFECT OF PRODUCER'S DESIGN LOGIC ON THOUGHT ATTRIBUTION: SELECTION AND ATTRIBUTION OF 30 DISCRIMINATING THOUGHTS AS A FUNCTION OF PRODUCER'S DESIGN LOGIC

Thought	Mean Frequency of Selection EXP	CON	RHE	Mean Frequency of Attribution EXP	CON	RHE	F(2,21)	p
Terry needs to know that I'm a little angry.	.875	.750	.250	.836	.684	.626	4.37	.026
I value Terry's friendship.	.625	.500	.750	.509	.685	.685	2.31	.124
Terry and I could do something else and skip the movie.	.125	.000	.500	.012	.018	.129	2.60	.098
I should stop seeing Terry for a while.	.625	.250	.000	.424	.274	.170	5.67	.011
Terry irritates me.	.500	.500	.000	.449	.351	.339	1.66	.213
If Terry knows I feel hurt it will make me look bad.	.000	.000	.375	.085	.164	.094	1.80	.190
Terry is active.	.125	.625	1.000	.346	.480	.526	4.48	.024
I'm upset with Terry.	.875	.500	.000	.679	.596	.509	3.55	.047
The friendship is important to me.	.500	.625	.750	.672	.754	.836	2.26	.130
Terry is overcommitted.	.250	.375	1.000	.533	.678	.637	4.22	.029
I should be understanding about Terry's problems.	.125	.500	.500	.091	.205	.246	3.43	.052
I want Terry to feel bad.	.500	.000	.125	.351	.240	.117	6.61	.006
I want Terry to feel guilty.	.500	.000	.000	.388	.304	.175	4.50	.024
Terry is insensitive to the feelings of others.	.750	.000	.125	.709	.456	.509	5.96	.009
Terry doesn't respect me.	.750	.000	.125	.309	.211	.211	1.35	.280
Terry is inconsiderate.	.750	.250	.375	.842	.550	.632	7.62	.003
I'm tired of Terry's behavior.	1.000	.250	.000	.594	.474	.433	3.25	.059
Terry will try to keep the appointment tomorrow night.	.000	.875	.125	.087	.246	.199	4.56	.023
I'm sick of being let down.	1.000	.125	.625	.752	.702	.550	3.69	.042
Terry should apologize for being a bad friend.	.500	.000	.000	.230	.135	.252	3.99	.036
Terry is self-centered.	.625	.000	.125	.309	.257	.210	2.94	.075
If I refused to see Terry, Terry would miss me.	.500	.000	.000	.139	.123	.088	.88	.430
I understand why Terry had to cancel our date.	.000	.500	.500	.042	.175	.146	2.78	.085
Terry's telling the truth.	.125	.875	.250	.085	.199	.234	3.73	.041
Terry's insecure.	.500	.000	.000	.042	.029	.053	.54	.590
Terry should stop acting interested . . . and breaking dates.	.875	.250	.000	.533	.491	.439	1.51	.245
Terry isn't behaving like a good friend.	.875	.250	.125	.830	.708	.667	3.16	.063
I should refuse to go with Terry tomorrow.	.500	.125	.000	.321	.170	.100	10.64	.001
Terry doesn't seem to have enough time for our friendship.	.625	.375	.375	.879	.830	.836	.69	.514
Terry is rude.	.500	.000	.000	.388	.222	.211	7.83	.003

EXP = Expressive CON = Conventional RHE = Rhetorical

Note: Values for thought selection in this table summarize the thoughts checked by the 24 message producers from Study I who generated the stimulus messages used in Study II.

TABLE 7

MEAN FREQUENCIES OF ATTRIBUTION OF THE THOUGHT
"Terry will try to keep the appointment tomorrow night"
AS A FUNCTION OF PRODUCER'S AND RESPONDENT'S MESSAGE DESIGN LOGIC

Design Logic of Message Evaluator	Design Logic of Message			Across Message
	EXP	CON	RHE	
EXP	.070	.119	.269	.160
CON	.079	.264	.173	.172
RHE	.182	.342	.160	.229
Across Evaluator	.097	.245	.199	
Across Producers	.000	.875	.125	

TABLE 8

MEAN FREQUENCIES OF ATTRIBUTION OF THE THOUGHT "Terry doesn't respect me"
AS A FUNCTION OF PRODUCER'S AND RESPONDENT'S MESSAGE DESIGN LOGIC

Design Logic of Message Evaluator	Design Logic of Message			Across Message
	EXP	CON	RHE	
EXP	.348	.143	.250	.248
CON	.292	.286	.247	.276
RHE	.303	.105	.079	.157
Across Evaluator	.309	.210	.210	
Across Producers	.750	.000	.125	